No new subject matter has been added. The amendments have been made to clarify the claims and are not intended to limit the scope of equivalents to which any claim element may be entitled. The amendments to the claims are fully supported by the specification as originally filed.

Claims 3, 6 and 13 are amended to remove the parenthetical term, in response to the Examiner's comment regarding these claims at page 3 of the Office Action.

Claim 3 is also amended to recite proper antecedent basis.

Claim 4 is amended to correct a typographical error and in response to the Examiner's comments at page 3 of the Office Action.

Claims 6-11 and 13 are amended to recite proper antecedent basis.

Support for the newly added claims 22-24 is found in originally filed claims 2, 5, and 12, and in the specification at page 4, line 8; page 5, line 14, and page 7, line 4. Claims 22-24 are added to correct typographical errors in cancelled claims 2, 5, and 12.

Receipt of the Notice of Draftperson's Patent Drawing Review is acknowledged. Corrected drawings in light of the Draftperson's objections will be submitted in a timely manner after receipt of a notice of allowable subject matter.

The 35 U.S.C. § 112, second paragraph, rejection of the claims

The Examiner rejected claims 3-4 and 6-13 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

The Examiner states that the term "tamoxifen" in claims 3, 6 and 13 is redundant, and that the phrase "the negative effects" renders claim 4 indefinite. Claims 3, 6 and 13 have been amended to no longer recite the term "tamoxifen", and claim 4 has been amended to no longer recite the phrase "the negative effects", thereby rendering these rejections moot.

Withdrawal of the rejection of the claims under § 112, second paragraph, is therefore respectfully requested.

The 35 U.S.C. § 112, first paragraph, rejection of the claims

The Examiner rejected claims 1-11 under 35 U.S.C. § 112, first paragraph, because the specification does not reasonably provide enablement for the phrase "a ClC3 blocker." As this rejection may be maintained with respect to the pending claims, it is respectfully traversed.

In particular, the Examiner alleges that the phrase "a ClC3 blocker" in claims 1 and 4 lacks clear exemplary support in the specification. However, Applicant need not demonstrate the efficacy of all ClC3 blockers in order to be entitled to a generic claim of reasonable scope. In re Angstadt, 190 U.S.P.Q. 214 (C.C.P.A. 1976). The scope of enablement provided by Applicant need only bear a "reasonable correlation" to the scope of the claims. In re Fisher, 166 U.S.P.Q. 18, 24 (C.C.P.A. 1970). The purpose of the enablement provision is to assure that the inventor provides sufficient information about the claimed invention so that a person of skill in the field of the invention can make and use it without undue experimentation, relying on the patent specification and the knowledge in the art. Scripps Clinic and Research Foundation v. Genentech, Inc., 927 F.2d 1565, 18 U.S.P.Q. 2d 1001, 18 U.S.P.Q.2d 1896 (Fed. Cir. 1991). Moreover, it is well-settled that there is no requirement for working examples to fulfill the requirements of 35 U.S.C. §112, first paragraph, if the invention is otherwise disclosed so that one of ordinary skill in the art can practice the invention without undue experimentation. In re Robins, 429 F.2d 452, 166 U.S.P.Q. 552, 555 (C.C.P.A. 1970); In re Borokowski et al., 422 F.2d 904, 164 U.S.P.Q. 642, 645 (C.C.P.A. 1970).

Applicant submits that practitioners in the art related to the present application would be well-equipped to prepare and screen ClC3 blockers to identify those that reduce the sensitivity of endothelially-compromised vascular smooth muscle. Hybritech Inc. v. Monoclonal Antibodies Inc., 231 U.S.P.Q. 81, 84 (Fed. Cir. 1986) (evidence that screening methods used to identify characteristics of monoclonal antibodies were available to art convincing of enablement). Furthermore, it is respectfully submitted that the enablement question in the present application is very similar to that resolved by the Board of Appeals in Ex parte Mark, 12 U.S.P.Q.2d 1904 (Bd. App. 1989). The generic polypeptide was claimed as follows:

> 1. A synthetic mutein of a biologically active native protein in which native protein has at least one cysteine residue that is free to form a disulfide link and is

> nonessential to said biological activity, said mutein having at least one of said cysteine residues substituted by another amino acid and said mutein exhibiting the biological activity of said native protein.

The enablement rejection in *Ex parte Mark*, similar to the rejection in the present application, was summarized as follows:

> Essentially, the position taken in the rejection is that it would require undue further experimentation to construct by recombinant methods (site specific mutagenesis) the innumerable muteins encompassed by the instant claims (claims encompass modification of any protein which comprises a "non-essential" cysteine residue) and to screen the muteins produced for any of those which exhibit biological activity after modification.

Id. at 1906. The "broader than the enabling disclosure" rejection was reversed in Ex parte Mark because the specification taught how to delete or replace cysteine residues and how to determine whether or not a given "mutein" was within the scope of the claims. The Board held that one skilled in the art was clearly enabled to perform such work as needed to determine whether the cysteine residues of a given protein were needed for retention of biological activity. *Id.* at 1907.

Likewise, it is respectfully submitted that Applicant teaches starting materials (chloride channel blockers) and methods to screen them, thereby enabling the generic class of ClC3 blocker compounds. First, one of ordinary skill in the art is apprised of pharmacological agents that inhibit chloride channel current, e.g., niflumic acid, 4,4'-diisothiocyanostilbene-2,2'-disulphonic acid (DIDS), and tamoxifen (page 23, lines 10-13). Second, to screen for a particular ClC3 blocker's ability to reduce the sensitivity of endothelially-compromised vascular smooth muscle cells, Applicant teaches in Example 1, for example, that rings of rat aorta may be prepared and the contractile response to a potential ClC3 blocker of intact rat aortic tissue can be compared to that of a denuded or otherwise endothelially-compromised rat aorta sample. For example, Applicant discloses that the contractility of tamoxifen treated denuded blood vessels is similar to that of the intact blood vessels (Example 2, Figure 2). Thus, Applicant teaches starting materials and methods to screen them, thereby enabling the generic class of compounds.

Hence, withdrawal of the 35 U.S.C. § 112(1) enablement rejection is respectfully requested.

The 35 U.S.C. § 103(a) rejection of the claims

The Examiner rejected claims 1-13 as being unpatentable over Lamb, "Supplemental Data to 1RO1 18L62483-01 ClC-3 Chloride Ion Channels in Vascular Smooth Muscle" ("Supplemental Data"), the publication date of which the Examiner asserts is May 1995. As this rejection may be maintained with respect to the pending claims it is respectfully traversed.

The Examiner is respectfully requested to consider the Rule 132 Declaration of Alisia G. Dunbar, enclosed herewith. In the Declaration, Ms. Dunbar states that she prepared the Form 1449 which lists "Supplemental Data", and which was submitted with the Information Disclosure Statement filed in the present case on June 18, 2001. She states that she mistakenly identified the publication date of "Supplemental Data" as May 1995. Evidence that the document was not published in May, 1995 is provided in "Supplemental Data" itself. The Examiner is urged to consider that page 1 of the document refers to three, post-1995 journal articles, *viz*, Duan *et al.*, Nature, 390, 417 (1997); Lamb and Barta, Am. J. Physiol., Heart Circ., 44, H151 (1998); and Lamb and Barta, Heart Circ., 44, H161 (1998). As additional evidence, Appendix A of the Declaration, a cover sheet that accompanied the document when it was submitted to the National Institutes of Health, indicates that "Supplemental Data" was submitted to the Cardiovascular and Renal Study Section for funding review on September 15, 1998.

The present application claims priority to the provisional U.S. application Serial No. 60/121,727, filed on February 26, 1999. As the September 1998 document was mailed less than one year before the priority date, the document is not available as a 35 U.S.C. § 103(a) reference.

Therefore, withdrawal of the 35 U.S.C. § 103(a) rejection is respectfully requested.

Conclusion

The Examiner is invited to telephone the below-signed attorney at (612) 373-6961 to discuss any questions which may remain with respect to the present application.

Respectfully submitted,

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By his Representatives,

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Date 9 January 2002 By _____
Ann S. Viksnins
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ASV:kajh

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this 9 day of January, 2002.

Candis B. Buending
Name

Signature